

#2 OIPE

RAW SEQUENCE LISTING

DATE: 01/08/2002

PATENT APPLICATION: US/09/956,998A

TIME: 10:10:53

Input Set : N:\Crf3\RULE60\09956998A.raw

Output Set: N:\CRF3\01082002\I956998A.raw

1 <110> APPLICANT: Black Jr., Charles A.
2 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR ACTIVATING
3 GENES OF INTEREST
4 <130> FILE REFERENCE: 5722-2(35722/191928)
6 <140> CURRENT APPLICATION NUMBER: US/09/956,998A
7 <141> CURRENT FILING DATE: 2001-09-20
9 <150> PRIOR APPLICATION NUMBER: 09/446,402
10 <151> PRIOR FILING DATE: 1999-12-20
13 <150> PRIOR APPLICATION NUMBER: 60/050,772
14 <151> PRIOR FILING DATE: 1997-06-25
15 <160> NUMBER OF SEQ ID NOS: 19
16 <170> SOFTWARE: FastSEQ for Windows Version 4.0
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 4279
20 <212> TYPE: DNA
21 <213> ORGANISM: Artificial Sequence
22 <220> FEATURE:
23 <223> OTHER INFORMATION: Recombinant Molecule containing multiple cloning
24 site, kozak sequence, LacZ gene.
25 <221> NAME/KEY: misc_feature
26 <222> LOCATION: (1)...(64)
27 <223> OTHER INFORMATION: Multiple cloning site
28 <221> NAME/KEY: misc_feature
29 <222> LOCATION: (65)...(79)
30 <223> OTHER INFORMATION: Consensus sequence for the "Kozak sequence"
31 (translation initiation)
32 <221> NAME/KEY: prim_transcript
33 <222> LOCATION: (80)...(4279)
34 <223> OTHER INFORMATION: Beta galactosidase
35 <400> SEQUENCE: 1
36 ttaatacgac tcaactatagg ctagcctcga gaattcacgc gtggtacctc tagagtcgac 60
37 ccgggccgcc gccaccatgg cgcagcacca tggcctgaaa taacctctga aagaggaact 120
38 tggttaggta ccttctgagg cggaaagaac cagctgtgga atgtgtgtca gttagggtgt 180
39 ggaaagtccc caggctcccc agcaggcaga agtatgcaaa gcatgcatct caattagtca 240
40 gcaaccagggt gtggaaagtc cccaggctcc ccagcaggca gaagtatgca aagcatgcat 300
41 ctcaattagt cagcaaccat agtcccgcgc ctaactccgc ccatcccgcc cctaactccg 360
42 cccagttccg cccattctcc gccccatggc tgactaattt tttttattta tgcagaggcc 420
43 gaggccgcct cggcctctga gctattccag aagtagtgag gaggcctttt tggaggccta 480
44 ggcttttgca aaaagcttgg gatctctata atctcgcgca acctattttc ccctcgaaca 540
45 ctttttaagc cgtagataaa caggctggga cacttcacat gagcgaaaaa tacatcgtca 600
46 cctgggacat gttgcagatc catgcacgta aactcgcaag ccgactgatg ccttctgaac 660
47 aatggaaagg cattattgcc gtaagccgtg gcggtctggt accggtgggt gaagaccaga 720
48 aacagcacct cgaactgagc cgcgatattg cccagcggtt caacgcgctg tatggcgaga 780
49 tcgatcccggt cgtttttacaa cgtcgtgact gggaaaaccc tggcgttacc caacttaatc 840
50 gccttgacgc acatccccct ttcgccagct ggcgtaatag cgaagaggcc cgcaccgatc 900
51 gcccttccca acagttgcgc agcctgaatg gcgaatggcg ctttgccctgg tttccggcac 960
52 cagaagcgggt gccggaaaagc tggctggagt gcgatcttcc tgaggccgat actgtcgtcg 1020

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53	tcccccaaaa	ctggcagatg	cacggttacg	atgcgcccac	ctacaccaac	gtaacctatc	1080
54	ccattacggt	caatccgccc	tttgttccca	cggagaatcc	gacgggttgt	tactcgctca	1140
55	catttaaatgt	tgatgaaagc	tggctacagg	aaggccagac	gcgaattatt	tttgatggcg	1200
56	ttaactcggc	gtttcatctg	tggtgcaacg	ggcgtggtg	cggttacggc	caggacagtc	1260
57	gtttgccgtc	tgaatttgac	ctgagcgcat	ttttacgcgc	cggagaaaac	cgcctcgcgg	1320
58	tgatggtgct	gcgttggagt	gacggcagtt	atctggaaga	tcaggatatg	tggcggatga	1380
59	gcggcatttt	ccgtgacgtc	tcgttgtctg	ataaaccgac	tacacaaatc	agcgatttcc	1440
60	atgttgccac	tcgttttaac	gatgatttca	gccgcgctgt	actggaggct	gaagttcaga	1500
61	tgtgcggcga	gttgctgac	tacctacggg	taacagtttc	tttatggcag	ggtgaaacgc	1560
62	aggtcgccag	cggcaccgcg	cctttcggcg	gtgaaattat	cgatgagcgt	ggtggttatg	1620
63	ccgatccgct	cacactacgt	ctgaacgtcg	aaaaccgcaa	actgtggagc	gccgaaatcc	1680
64	cgaatctcta	tcgtgcggtg	gttgaactgc	acaccgccga	cggcacgctg	attgaagcag	1740
65	aagcctgcga	tgtcggtttc	cgcgaggtgc	ggattgaaaa	tggctctgctg	ctgctgaacg	1800
66	gcaagccgtt	gctgattcga	ggcgtaaac	gtcacgagca	tcattcctctg	catggtcagg	1860
67	tcattggtga	gcagacgatg	gtgcaggata	tcctgtctgat	gaagcagaac	aactttaacg	1920
68	ccgtgcgctg	ttcgcattat	ccgaaccatc	cgtctgtgta	cacgctgtgc	gaccgctacg	1980
69	gcctgtatgt	ggtggatgaa	gccaatattg	aaaccacg	catggtgcca	atgaatcgtc	2040
70	tgaccgatga	tccgcgctgg	ctaccggcga	tgagcgaacg	cgtaacgcga	atggtgcagc	2100
71	gcgatcgtaa	tcacccgagt	gtgatcatct	ggtcgtggg	gaatgaatca	ggccacggcg	2160
72	ctaatacaga	cgcgctgtat	cgtggatca	aatctgtcga	tccttcccgc	ccggtgcagt	2220
73	atgaaggcgg	cggagccgac	accacggcca	ccgatattat	ttgcccgatg	tacgcgcgcg	2280
74	tggatgaaga	ccagcccttc	ccggctgtgc	cgaatgggtc	catcaaaaaa	tggctttcgc	2340
75	tacctggaga	gacgcgccc	ctgatccctt	gcgaatacgc	ccacgcgatg	ggtaacagtc	2400
76	ttggcggttt	cgctaaatac	tggcaggcgt	ttcgtcagta	tccccgttta	cagggcggct	2460
77	tcgtctggga	ctgggtggat	cagtcgtga	ttaaatatga	tgaaaacggc	aaccctgggt	2520
78	cggcttacgg	cgtgtatttt	ggcgatacgc	cgaacgatcg	ccagtctgt	atgaacggtc	2580
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81	atagcgataa	cgagctcctg	cactggatgg	tggcgtgga	tggtaagccg	ctggcaagcg	2760
82	gtgaagtgcc	tctggatgtc	gctccacaag	gtaaacagtt	gattgaactg	cctgaactac	2820
83	cgcagccgga	gagcgcggg	caactctggc	tcacagtacg	cgtagtgcaa	ccgaacgcga	2880
84	ccgcattggtc	agaagccggg	cacatcagcg	cctggcagca	gtggcgtctg	gcggaaaacc	2940
85	tcagtgtgac	gctccccgcc	gcgtccacg	ccatccccga	tctgaccacc	agcgaatagg	3000
86	atttttgcat	cgagctgggt	aataagcgtt	ggcaatttaa	ccgccagtca	ggctttcttt	3060
87	cacagatgtg	gattggcgat	aaaaaacaac	tgctgacgcc	gctgcgcgat	cagttcaccc	3120
88	gtgcaccgct	ggataacgac	attggcgtaa	gtgaagcgac	ccgcattgac	cctaacgcct	3180
89	gggtcgaacg	ctggaaggcg	gcgggccatt	accaggccga	agcagcgttg	ttgcaagtga	3240
90	cggcagatac	acttgctgat	gcggtgctga	ttacgaccgc	tcacgcgtgg	cagcatcagg	3300
91	ggaaaacctt	atttatcagc	cggaaaacct	accggattga	tggtagtgg	caaatggcga	3360
92	ttaccgttga	tgttgaaagt	gcgagcgata	caccgcattc	ggcgcggatt	ggcctgaact	3420
93	gccagctggc	gcaggtagca	gagcgggtaa	actggctcgg	attagggccg	caagaaaact	3480
94	atcccgcaccg	ccttactgcc	gcctgttttg	accgctggga	tctgccattg	tcagacatgt	3540
95	ataccccgta	cgtcttccc	agcgaaaacg	gtctgcgctg	cgggacgcgc	gaattgaatt	3600
96	atggcccaca	ccagtggcgc	ggcgacttcc	agttcaacat	cagccgctac	agtcaacagc	3660
97	aactgatgga	aaccagccat	cgccatctgc	tgcacgcgga	agaaggcaca	tggctgaata	3720
98	tcgacgggtt	ccatatgggg	attggtggcg	acgaactcctg	gagcccgta	gtatcggcgg	3780
99	aattccagct	gagcgcgggt	cgctaccatt	accagttggt	ctggtgtcaa	aaataataat	3840
100	aaccgggcag	gccatgtctg	ccgtatttcc	gcgtaaggaa	atccattatg	tactattttaa	3900
101	aaaacacaaa	cttttggtatg	ttcggtttat	tctttttctt	ttactttttt	atcatgggag	3960

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102      cctacttccc gtttttcccg atttggctac atgacatcaa ccatatcagc aaaagtgata      4020
103      cgggtattat ttttgccgct atttctctgt tctcgctatt attccaaccg ctgtttggtc      4080
104      tgctttctga caaactcggg acttgtttat tgcagcttat aatgggttaca aataaagcaa      4140
105      tagcatcaca aatttcacaa ataaagcatt tttttcactg cattctagtt gtggtttgtc      4200
106      caaactcatc aatgtatctt atcatgtctg gatcctctag agtcgacctg caggcatgca      4260
107      agctggcact ggccgctcg      4279
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113 <220> FEATURE:
114 <223> OTHER INFORMATION: Synthetic oligonucleotide
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116      gaatacaaaag cttatgcatg      20
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119 <211> LENGTH: 13
120 <212> TYPE: DNA
121 <213> ORGANISM: Artificial Sequence
122 <220> FEATURE:
123 <223> OTHER INFORMATION: Synthetic oligonucleotide
124 <400> SEQUENCE: 3
125      gaatacaaaag ctt      13
127 <210> SEQ ID NO: 4
128 <211> LENGTH: 20
129 <212> TYPE: DNA
130 <213> ORGANISM: Artificial Sequence
131 <220> FEATURE:
132 <223> OTHER INFORMATION: Synthetic oligonucleotide
133 <400> SEQUENCE: 4
134      aaagcttatg catgcggccg      20
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137 <211> LENGTH: 20
138 <212> TYPE: DNA
139 <213> ORGANISM: Artificial Sequence
140 <220> FEATURE:
141 <223> OTHER INFORMATION: Synthetic oligonucleotide
142 <400> SEQUENCE: 5
143      cggccgcatc tagagggccc      20
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146 <211> LENGTH: 25
147 <212> TYPE: DNA
148 <213> ORGANISM: Artificial Sequence
149 <220> FEATURE:
150 <223> OTHER INFORMATION: Synthetic oligonucleotide
151 <400> SEQUENCE: 6
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154 <210> SEQ ID NO: 7
155 <211> LENGTH: 24
156 <212> TYPE: DNA

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157 <213> ORGANISM: Artificial Sequence
158 <220> FEATURE:
159 <223> OTHER INFORMATION: Synthetic oligonucleotide
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163 <210> SEQ ID NO: 8
164 <211> LENGTH: 30
165 <212> TYPE: DNA
166 <213> ORGANISM: Artificial Sequence
167 <220> FEATURE:
168 <223> OTHER INFORMATION: Synthetic oligonucleotide
169 <400> SEQUENCE: 8
170     aatacaaaagc ttatgcatgc ggccgcatct                            30
172 <210> SEQ ID NO: 9
173 <211> LENGTH: 20
174 <212> TYPE: DNA
175 <213> ORGANISM: Artificial Sequence
176 <220> FEATURE:
177 <223> OTHER INFORMATION: Synthetic oligonucleotide
178 <400> SEQUENCE: 9
179     catgcataag ctttgtattc                                20
181 <210> SEQ ID NO: 10
182 <211> LENGTH: 13
183 <212> TYPE: DNA
184 <213> ORGANISM: Artificial Sequence
185 <220> FEATURE:
186 <223> OTHER INFORMATION: Synthetic oligonucleotide
187 <400> SEQUENCE: 10
188     aagctttgta ttc                                          13
190 <210> SEQ ID NO: 11
191 <211> LENGTH: 20
192 <212> TYPE: DNA
193 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
195 <223> OTHER INFORMATION: Synthetic oligonucleotide
196 <400> SEQUENCE: 11
197     cggccgcatg cataaagcttt                                20
199 <210> SEQ ID NO: 12
200 <211> LENGTH: 20
201 <212> TYPE: DNA
202 <213> ORGANISM: Artificial Sequence
203 <220> FEATURE:
204 <223> OTHER INFORMATION: Synthetic oligonucleotide
205 <400> SEQUENCE: 12
206     gggccctcta gatgcggccg                                20
208 <210> SEQ ID NO: 13
209 <211> LENGTH: 25
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial Sequence

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213 <223> OTHER INFORMATION: Synthetic oligonucleotide
214 <400> SEQUENCE: 13
215      atccgggccc tctagatgcg gccgc
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218 <211> LENGTH: 24
219 <212> TYPE: DNA
220 <213> ORGANISM: Artificial Sequence
221 <220> FEATURE:
222 <223> OTHER INFORMATION: Synthetic oligonucleotide
223 <400> SEQUENCE: 14
224      ggccgcatgc ataagctttg tatt
226 <210> SEQ ID NO: 15
227 <211> LENGTH: 30
228 <212> TYPE: DNA
229 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Synthetic oligonucleotide
232 <400> SEQUENCE: 15
233      agatgctggcc gcatgcataa gctttgtatt
235 <210> SEQ ID NO: 16
236 <211> LENGTH: 1798
237 <212> TYPE: RNA
238 <213> ORGANISM: Unknown
239 <220> FEATURE:
240 <223> OTHER INFORMATION: mRNA sequence for Firefly luciferase
241 <400> SEQUENCE: 16
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244      caacugcaua aggcuauaag gagauacgcc cugguuccug gaacaauugc uuuuacagau      180
245      gcacauaucg aggugaacau cacguacgcg gaauacuucg aaauuguccg ucgguuggca      240
246      gaagcuaua aacgauaugg gcugaauaca aaucacagaa ucgucguaug cagugaaaac      300
247      ucucuuaau ucuuuauugc gguguugggc gccguuauuu aucggaguug caguugcgcc      360
248      cgcgaagcac auuuauaaug aacgugaauu gcucaacagu augaacaauu cgcagccuac      420
249      cguaguguuu guuuccaaaa agggguugca aaaaauuuug aacgugcaaa aaaaauuacc      480
250      aaauauccag aaaaauauua ucauggauuc uaaaacggau uaccagggau uucagucgau      540
251      guacacguuc gucacauuc aucuaccucc cgguuuuauu gaauacgauu uuguaccaga      600
252      guccuuugau cgugacaaaa caauugcacu gauaaugaau uccucuggau cuacuggguu      660
253      accuaagggu guggcccuuc cgcauagaac ugccugcguc agauucucgc augccagaga      720
254      uccuauuuuu ggcaaucaaa ucauuccgga uacugcgauu uuaaguguug uuccauucca      780
255      ucacgguuuu ggaauuuua cuacacucgg auauuuugau uguggauuuc gagucgucuu      840
256      aauguauaga uuugaagaag agcuguuuuu acgaucccu caggauuaca aaauucaaag      900
257      ugcguugcua guaccaaccc uauuuucauu cuucgcctaa agcacucuga uugacaaaau      960
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259      ggaagcgguu gcaaaacgcu uccaucucc agggauacga caaggauaug ggcucacuga      1080
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261      aguuguucca uuuuuugaag cgaagguugu ggaucuggau accgggaaaa cgcugggcgu      1200
262      uaaucagaga ggcgaauuau gugucagagg accuauuuu auguccgguu auguaaacia      1260
263      uccggaagcg accaacgccu ugauugacaa ggauggaug cuacauucug gagacauagc      1320

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